

CLAIMS

【Claim 1】

Method for dynamic keyword extraction and processing, comprising of: (a) Hooking user's input string from Internet address bar of web browser or Internet tool; (b) Extracting user's keyword from the user's input string; (c) Retrieving the related keywords of the extracted keyword by using dictionary database or keyword database of search engine; (d) Displaying the extracted keyword or the related keywords or processed keywords. (e) Execute web site connection or display related keywords.

【Claim 2】

The method of claim 1, wherein said the extracted keywords or related keywords or processed keywords includes at least one of followings: a separated level string of URL, a search word, and a keyword domain string.

【Claim 3】

A system for providing dynamic keyword extraction and processing includes following program modules: (a) A module for user's input string that is entered or displayed in address bar of web browser or Internet tool; (b) A module that parses the input string and determine the keyword from the parsed input string; (c) A module that processes extracted keyword; (d) A database for keyword processing as is retrieving related words; (e) A module for user interface which defines the keyword processing rules set by user; (f) A module which executes further search in search engine or web site connection according to the keyword processing rules.

【Claim 4】

The system of claim 3, the arrangement of each module and database are as followings: (a) The modules and database are located in user's terminal; (b) The modules and database are located in an external server which are connected with the user's terminal by Internet; (c) Some part of the module and database are located in an external server and the other part and database are located in user's terminal.

【Claim 5】

The system of claim 3, wherein said the module that parses the input string and determine the keyword from the parsed input string, determines the input string as a keyword if the input string is not including dot and determines the input string as a URL if the input string includes dot;

the module classifies the URL string into top level domain, 2nd level domain, 3rd level domain, 4th level domain; And the module abstracts keyword from 3rd level domain and region information or category information of web site from top or 2nd level domain.

5 **【Claim 6】**

The method of claim 1 and claim 2, keyword display window or tool bar includes plug-in program; Keyword extraction and processing method includes a form of pop-up window or dialog box displaying separately from web browser or Internet tool.

10 **【Claim 7】**

The method of claim 1 and claim 2, the method of dynamic keyword extraction and processing displays the extracted keyword and processed keyword in the form of as followings: A form of keyword, a translated word of other languages, abbreviation, antonym, synonym or keyword of search result of search engine; It includes category information extracted from each
15 level domain of string besides keyword in object to process and display; In displayed string, displaying that helps users search newly using processed string and displays pop-up menu or toolbar menu for execution of search and instant opening is included; Users can add, delete, correct words they want about processed and presented string using the functions.

20 **【Claim 8】**

The method of claim 7, includes followings: Search engine in method of claim includes utilizing DB in users' terminal, DB for specific search engine, or DB of specific server; And displaying the search result of search engine as it is when displaying to users in a processed form; A method that starts search at the step of abstracting keyword without users' search for keyword
25 and processes with users' web site navigation; And prepares lists pre-searched results for relevant keyword when users click keyword display window or toolbar is included.

【Claim 9】

The method of Claim 1, includes followings: When it is difficult to abstract keyword only
30 with 3rd level domain string that composes URL string, (a) A method that abstracts keyword for string of relevant URL using abbreviate word database or dictionary database; (b) When HTML source of web site page that users visit has meta tags, a method to abstract words that compose meta title string as keyword; (c) A method that abstract frequently used words as keyword from web site page that users visit; (d) A method that sends whole URL string input or displayed in web
35 browser address bar to search engine and abstracts keyword from name of relevant URL and explanation.

【Claim 10】

The method of claim 1, it includes abstracting keyword, searching with words related to keyword and collecting search result is processed at the same time with web browser and Internet search engine; Searched result of words related to the keyword extracted by users are stored by temporary storing directory, cookie, file, and database before users start to search; When they need search result, related words, or related sites list, searching and preparing sources for those is done.

【Claim 11】

Method for user oriented keyword definition and keyword navigation using each user's own keyword definition for web site address or URL, comprising of: (a) User defines Internet address or URL as user's own alias that is easy to remember and type in for the user; (b) The user stores the alias information in user side Internet terminal (UT) or external alias name server in the form of database; (c) User can update, add, or delete the keyword definition database as needed.

【Claim 12】

The method of claim 11 includes followings: In domain alias definition method that supports users' repeated approach to Internet using alias they define for web site that marks its Internet address as domain name, IP address, or URL; A step that users define alias they can use easily for specific web site and input alias; A step that adds input alias of users and one thing from domain of specific web site, IP address or URL which correspond to it to users' alias record as separate alias record and stores them; A step that makes it possible to add, change, and delete stored users' alias name database; A step that users define specific web site mentioned above as alias they can easily use and input alias is the one that they visit specific web site using web browser or Internet tool; A step that users define web site they are visiting as alias they can easily use and input the alias into tool for alias definition or editor; A step that adds input alias of users and one thing from domain of specific web site, IP address or URL which correspond to it to users' alias record as separate alias record and stores them; is the step that alias processing program connects users alias database; A step that stores with one thing from input alias, domain name, IP address, or URL of web site, A step that makes it possible to add, change, and delete stored users' Alias database is the step that opens alias database editor to users by their request; A step that outputs users alias database stored in users to screen; A step that users change or delete Alias record of a specific item in users alias database; A step that reflects contents added, changed, and deleted by users into users alias database and stores.

【Claim 13】

The method of claim 11 includes followings: Storing location of users alias DB in domain alias definition method by users' definition of method of claim 11 and 12 follows a method to store directly in users' terminal or a method to store in external server connected to users' terminal by Internet.

【Claim 14】

The method of claim 11 includes followings: In method of claim 11 and 12, users designated name server for alias to use about items that are not in their alias database; And users alias database is used first; For definition that is not in users alias DB, service provided by name server designated by users are used together.

【Claim 15】

The method of claim 11 and 12, users' methods of alias DB composition are as followings:

- a) A method that users list examples of alias and choose relevant list or list group and download all of chosen list group;
- b) Users designate update time interval and field of update in name server designated by them; And when relevant items are changed in name server, program of users' terminal checks the changed items by time interval designated by users and updates automatically users alias DB stored in users' terminal or server designated by users;
- c) A method that users visit relevant site and they define alias for the page they are visiting and input the alias;
- d) A method that users input themselves into alias DB using editor;
- e) A method that users add alias definition menu in mouse click button and input relevant site among several sites searched by alias with search engine;

The methods above can be applied to adding, changing and erasing alias DB composed by users.

【Claim 16】

The method of claim 11 and 12, users' methods of alias DB composition are as followings:

Users designate name server for alias to use about items that are not in their alias DB; And users alias DB is used first; For definition that is not in users alias DB, service provided by name server designated by users are used together.

【Claim 17】

The method of claim 11 and 12, alias defined by users for Internet address is composed of combination of all letters and numbers which can be input in users' terminal; Users can define e-mail address and telephone number and use them.

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【Claim 18】

The method of claim 11 includes followings: If string input in Internet address bar is not Internet address in a form of existent dot name marking, processing method for this is searched by search engine and Internet address connection or not processed is presented separately; Users can choose and define; Field they do not want and processing it are presented to them; The dynamic keyword processing method and system include a method that makes users to store items they chose in their terminal or server and user interface.

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【Claim 19】

The method of claim 11 includes selective service method of users alias server and interface for it; Those are as followings: Sites registered in users alias DB are classified into some groups by users' age, harmfulness of the sites, relation and commerce; Name servers for alias are arranged in couples and field of alias of each name server's service is presented; Consequently, users can choose name server that is appropriate for them.

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【Claim 20】

The method of includes a method and interface for it; Those are as followings: Users choose alias list that is possible to be visited often by them, download it, and store it in their terminal or server they designate; Before searching alias input in address bar by users for access to Internet in external name server, the alias is searched in users alias DB in users' terminal first; For alias frequently used, users can get an actual Internet address for alias without passing external alias server and run web browser and Internet tool.

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【Claim 21】

The method of claim 20, if alias input string by users are not in relevant name server or not in field that users want, the string is marked before approaching relevant address and list of other related site is output; Users can decide to advance, approach another related sites, or search for new sites for alias.

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【Claim 22】

The method of claim 20, words not limited to a specific person like general noun, names of region, people and words not registered in the Trademarks act are registered in alias server; When users approach for the first time, additional explanation for these is presented and listed in couples; And users can choose site that they will user for relevant alias later; User's selection is stored in alias DB of users' terminal and they can relevant alias.

【Claim 23】

The method of claim 22, when alias is registered in name server DB, about alias that can be registered in couples and cannot be insisted by a specific person, fields like Internet address of each site, explanation for relevant site, reason for alias, relation, commerce, relevant category, and age limit of users are added. For one alias, many different Internet address sites are registered.

【Claim 24】

A method of e-mail address and Internet address conversion, comprising of: When e-mail address, not Internet address, appears in Internet address bar, client software installed in users' terminal asks server, uses an actual Internet address for relevant e-mail address and runs users' web browser or Internet tool. Users can access an actual Internet address that corresponds to e-mail address by using the e-mail address.

【Claim 25】

A system of e-mail address and Internet address conversion, comprising of: It has mapping database in which e-mail address of users and actual Internet address that corresponds to it; Using this mapping database, they answer to a question of an actual Internet address by e-mail address in users' terminal. And they make, update, add, and delete mapping database.

【Claim 26】

The method of claim 24 and the system of claim 25 include: Hooking users input string from address bar of web browser or Internet tool; determine the input string if it is e-mail address or Internet address; If the input string is e-mail address, send it to conversion system which has mapping database of e-mail address and URL; Run the web browser with an actual Internet address using internet address mapped in e-mail, IP address, domain name, or URL; And they include client software that offers user interface to define URL, and users' e-mail address and Internet address in mapping database of conversion system.

【Claim 27】

The method of claim 26, include method which determines e-mail address by checking the input string is including "@" or not; If the input string has "@", it will be considered as e-mail address; the determination of e-mail address is executed by the client software in user side Internet terminal.

【Claim 28】

The method of claim 26, includes client software in users' terminal is written as apart of operation system program, in a form that moves with plug-in in web browser or in a form of toolbar for access to Internet; also includes a method that client software in the method of claim 3 is installed or updated together in case of installing or updating the programs.

【Claim 29】

The system and method of claim 24, 25 and 26, wherein said include: A step that users select or designate Internet address of the e-mail conversion system.

【Claim 30】

The system and method of claim 24,25 and 26 include: a way of translating e-mail address and Internet address used in a general form defined by international standard naming scheme and a form that is different to it, e-mail address is changed into an actual Internet address.

【Claim 31】

The system and method of claim 24,25 and 26, client software and conversion system are located in one system connected by Internet and translate the e-mail address input string into actual Internet address or URL that corresponds to the e-mail and URL mapping database of conversion system.